

## Python Multithreading: Speed up your Scripts 1000% (Geocoding Example)

Ben Bond - City of Huntington

10:30 - 11:20 am

### Bio:

**Ben** has been working for the city of Huntington for the past two years. I have a masters in GIS from Penn State and currently serve as the President of NIGIC.



### Abstract:

Python is not internally thread safe and utilizes a global interpreter lock (GIL) to synchronize code execution. The GIL restricts python to a single thread on a single core preventing sequential scripts from utilizing the full processing power of modern multicore computers. I/O and CPU bound processes are common in GIS processing and can drastically benefit from concurrency. Examples include large file transfers, geocoding, or raster processing. This talk will cover utilizing a web based geocoder and concurrency to quickly convert a list of addresses to GPS coordinates.